

# Building Resilient Homes to Build Resilient Communities

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*July 25<sup>th</sup>, 2017 10:00am to 1:00pm*

*Workshop Minutes*

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## Attendance & Introductions (32)

- Michael Germeraad, Hazard Mitigation @ ABAG
- Kellen Dammann, Marin County Community Development, BAYREN, Energy Efficiency Rebate Program
- Michelle Nochisaki, Green and Healthy Homes Jurisdiction @ Marin County. Impact housing by improving healthiness and environmental sustainability
- Alexandra Lichtenberg, Sustainability consultant at Same Drop, works on sustainable construction as related to energy water and resource efficiency
- Jenny Berg, BayREN @ ABAG/MTC
- Hoi-Fei Mok, Program officer with ICLEI, Sustainability and climate action work, support climate adaptation and resilience within the region
- Ada Chan, Integrated Planning Program @ ABAG/Metro Center, Housing Policy Department
- Violet Saena, ACTERRA Non-Profit in Palo Alto, work with low income families in East Palo Alto, focus on energy efficiency and improving livelihoods
- Arietta Chakos, Urban Resilience Strategies Consultant, ABAG, Housing area through Resilience Work
- Phu Nguyen, Sustainable Silicon Valley, working with San Jose on workshops to address multifamily split incentive issue within the city and how to prepare package to incentivize landlords to take on energy efficiency upgrades
- Shereen D'Souza, AECOM, Climate Planning and Resilience Issues, Working with 100 Resilient cities from education to resilience to housing
- Justin LeVecque, Bay Area Air Quality Management District, Climate Planning Group
- Janiele Maffei, Structural Engineer at California Earthquake Authority, works on mitigation and a program to fund financing of homes pursuing seismic retrofit
- Matt Maloney, MTC ABAG, Assistant Planning Director, Oversight of Long Range Plans such as Plan Bay Area
- Julie Pierce, President of ABAG, Council Member of Clayton in Contra Costa
- Marianna Grossman, Minerva Ventures, Consulting around resiliency and climate adaptation, work with technology providers
- Sally Barros, City of San Leandro Sustainability Manager and previously planning, working on do-it-yourself home energy upgrades, hold courses to loan out tools to retrofit homes for seismic, and now looking to do that for energy efficiency
- Mindy Gentry, Community Development Director at City of Clayton, works on code enforcement and affordable resilient housing
- Jennifer Leshnower, Rebuilding Together San Francisco, works with low income and disadvantages communities on housing repair and homes being healthy and safe and recently began work on energy and resilience
- Daniel Davis, Federal Programs Planner at Contra Costa Conservation Development, provides federal grants from HUD to marginalized communities re- rehabilitation, Program Manager for Neighborhood Rehabilitation Program via grants and loans

- Jody London, Contra Costa Sustainability Coordinator, Managing project coming up on renewable energy potential, zoning and planning for renewable resources and adoption
- Phyllis Deets, Resident of San Francisco, volunteer for Children's Trust
- Michael Hornick, Building Science and Earthquake Coordinator at FEMA Region 9 in Oakland
- Lawrence Kornfield, City and County of San Francisco in Resilience, focused on earthquake hazard mitigation, city in early years of 30 year earthquake hazard program, most of which is focused on affordable/habitable housing.
- Laura Tam, Sustainability Director at SPUR consulting firm in Bay Area, supports planning work
- Tina Gonterman, Environmental Services at City of San Jose, Multi Family focused effort to align existing programs and build out programs, part of the City Energy Project (CEP). Housing Program embarking on soft story policy needs.
- Brianne Riley, Bay Planning Coalition, Business perspective to resilience conversation, sustainable waterfronts committee, clients have focus on middle wage housing
- Stephen Terrin, MTC, Emergency Management Planner, Prepare and mitigate disasters with regional transportation/transit agencies
- Kevin Gardiner, Planning Manager at City of Burlingame, focusing on programs to incentivize useful life of multifamily stock
- Jonathan Cherry, Planning and Development at City of Berkeley, working on Earthquake Safety and Seismic Retrofit Programs, Brace and Bolt Program, Energy and Sustainable Development Group
- Jonathan Penuela, City Administrator's Office at City of Oakland
- Lauryn Agnew, Bay Area Impact Investment Initiative\Seal Cove Financial, Sustainable Investment in Housing and Transportation
- Jerry Lahr, BayREN @ MTC/ABAG

## Resilient, Affordable, Sustainable Housing: thoughts to build off of, synergies being explored

[See ABAG/MTC Powerpoint]

Historically, there have been many program offerings for Bay Area residents relating to efficiency, resilience, water, and financing. While the goals are laudable, the programs are typically not coordinated and run in parallel despite the synergies between the objectives and stakeholders.



Alignment to simplify, amplify, and unlock co-benefit dividends

The current approach of focusing on individual properties and separate efforts for energy and water efficiency and seismic safety, would be more impactful if it was changed to combine all of these efforts. The alignment of home upgrades can unlock process efficiencies, communicate under-represented benefits, and build a robust environment for extensive building upgrades.

Characterize synergies in three ways:

- Complimentary Goals
- Aligned Process
- Multi-Benefit Project

### Room Discussion

Important to shift the thinking -- the resident or tenant is the customer. This shift will allow one to organize organizations to serve housing occupants and owners, not organizational purposes.

As someone who has worked on both earthquake retrofits and energy efficiency upgrades I hadn't considered the intersection. Will bring back idea and discuss with the city.

San Francisco's Soft Story program evolved to include adding additional units. As work was being done to improve the seismic performance, many building owners added additional units. Now the program offers an option to add units while retrofitting for soft story and many are opting in

In San Jose the city is struggling to make it easier for contractors to communicate and understand the spaces for integration. Contractors are the touchpoint with the customer (especially single-home owners) and have the opportunity to point out multi-purpose changes. Contractors might not see the nexus described in the powerpoint and San Jose is thinking of ways to equip contractors to be able to identify and push forward these integrations

- Others felt that the role of the contractor was not to be a designer and they are hired to do follow the plans. Instead, it is the role of the planner and/or designer to work on this introduction to multi-purposes changes
- Home upgrades and retrofits may serve as business opportunities for those in the trades. For trades that have seasonal work, exposing workers to “all-season” work might provide in otherwise off seasons or down time. There must be avenues to reach out to the trades and gauge their interest and get their perspective.
- As an early research question, ABAG was interested in the number of jobs extensive home upgrades would produce. With a rough back-of-the-napkin calculation the investment needed to upgrade existing housing could produce tens of thousands of construction and inspection jobs. Agree more work is needed to build out the workforce/economic development angle of home upgrade work.

A participant working on a home improvement initiative in Brazil’s slums shared their research that safety (mostly structural and air quality) were highest priority.

In the US, large majority of homeowners don’t understand all the options available and how to prioritize them, let alone integrate or synthesize across them. Many people are simply not aware of home efficiency upgrade options and how they can get there; missing a single, easy, accessible place to go to and to support in prioritizing projects

Many upgrades and improvements in energy efficiency are expensive and it is necessary to find ways to make it more affordable for communities, integration of changes/retrofits/upgrades may provide an opportunity to do so:

- Example: A combo of window glazing and heating element combined can have great impact on energy use. However, one without the other isn’t impactful. Some residents may only have money for one. Need to communicate that some upgrades aren’t simply additive, but require joint actions to unlock the worthwhile benefits. Need ways to communicate this, as well as financial resources to allow residents to do bigger projects together.
- Marin County coordinates with BAAQMD to provide funding for people to change wood stoves or fireplaces, mainly motivated by goals for air quality improvement. Marin County has taken advantage of this to integrate some of BayREN’s work and push for energy efficiency retrofits by having conversations about how residents can heat their homes – leads to discussions of how new heating system and insulation will provide multiple benefits to homeowners.
- BAYREN commenting on the need for the conversation to be centered about the homeowner and their needs/desires/experiences and not attached to an agency and its components; more important is what the results of a program or project mean for a homeowner or tenant.

## Marin Homeowner Toolkit resource

[See Marin County pdf Document]

The Toolkit is designed to reach out to realtor community and is based on the premise that there is a value add to realtors' work when they're able to provide a resource to homeowners as a part of their "welcome to your new home" package.



- Realtors are an optimal middle-man because of their interaction with many people considering investments in new homes.
- A former real estate agent recommended the resource could be refurbished in different ways by real estate community. Real estate companies like to put their brand on materials. If Marin provided the content they could integrate the rest into their materials. Many real estate agents continue to maintain relationship with community members and have newsletters and have broad reach into the homeowner community. Allows for more consistent and lasting conversations between realtors and homeowners.

The resource is intended to aggregate all program information and contact information that a homeowner may consider in a single place.

- Integrated across departments and used as a marketing vehicle for different sustainability resources within the county.
- At present, no single point of contact for the customer to contact to get access to services, at this point just a referral resource.
- Process to develop the toolkit was centralized – those working directly on the toolkit developed a first draft of content, and then contacted each program to review the content. This garnered quick and easy responses instead of if each program having to contribute content. Responses mostly came in within a week.

Distributed in paper form because this is the easiest way to get it out to new homeowners as a component of new home package

- In smaller counties and communities, the personal face-to-face interaction both with realtors and homeowners may be valued more. This may not be the case in all counties.
- Because it is a printed resource, it's difficult to track success.
  - The Energy Upgrade effort includes a survey which has a question of how the contractor heard about the program, but it hasn't provided much insight to date. Agreement that impact tracking is important, but some efforts are difficult.
- Online version does not get too much traffic, though it is used for distribution as well.

- Updating restricted to when new copies are needed for printing and distributed. At present no specific plan for updated versions is in place, but when a new round of printing is needed there are already ideas for programs that can be included in version 2.0.

Project took about 100-200 hours of in staff work for compilation, designed at first using an Adobe Design Template and support from a volunteer designer.

- Toolkit has been submitted for a California Public Information Officer Award.

Translation is often necessary to reach some low income and marginalized communities.

- Often, some of these programs do not have bi- or multi- lingual individuals working at the call centers, which also prevents some people from making use of the programs and services. This is also true for contractors.
- Sometimes end up implicitly recommending or biasing one contractor over another because of language.
- Faith communities and service communities or schools may also support in outreach and marketing, may also be useful in overcoming the obstacle of reaching low income communities.

## Green and Healthy Homes Initiative (GHHI)

[See Marin GHHI Powerpoint]

GHHI began as the Coalition to End Childhood Lead Poisoning. It evolved as the organization realized the issues with homes we're greater than just lead. When staff asked to enter homes to address lead issue, it was impossible to ignore the wide range of other issues in the homes. The initiative has had a bottom-up, grassroots approach since it started in Baltimore.



- Originally only assessed homes to mitigate the lead hazard and later became GHHI based on desire to align, braid, and coordinate all components of healthy homes by supporting retrofits and upgrades related to additional components of healthy and safe homes (examples are energy efficiency, trip and fall hazard, and insulation)
- Creating greatest impact with the least amount of burden on tenant/homeowner.
- Focused on low income families and communities, hence the original focus on components of basic health & safety.

Model provides space for a coordinator/organizer that will bridge the gap between homeowners and entities providing specific services.

- Does not necessarily involve each person (contractor as example) being an expert and aware of all components of GHHI's health homes goal.
  - Local Outcome Broker involved in coordinating/mediating this relationship.
  - Learning Network ensures that those involved at some point are aware of the collective work and assessments they are a part of.

Shared data and measurement / analysis of metrics and progress allows for easier communication of the project and alignment of retrofit options.

- Accumulates a larger mass of data.
- Makes it easier to speak across divisions, programs, departments, foci.
- Some challenges emerge in collecting and extrapolating all externalities and savings, so GHHI prioritizes health savings but this can vary depending on the locality the work is being implemented. The challenges and existing resources that exist in Baltimore are different than the challenges and resources in Marin.

The program operates differently when building owners or tenants reach out for assistance.



- Learning networks and contracts from the beginning support coalition ensuring that they have agreement to connect/speak/assess with both building owners and individual unit tenants.

Additional discussion points:

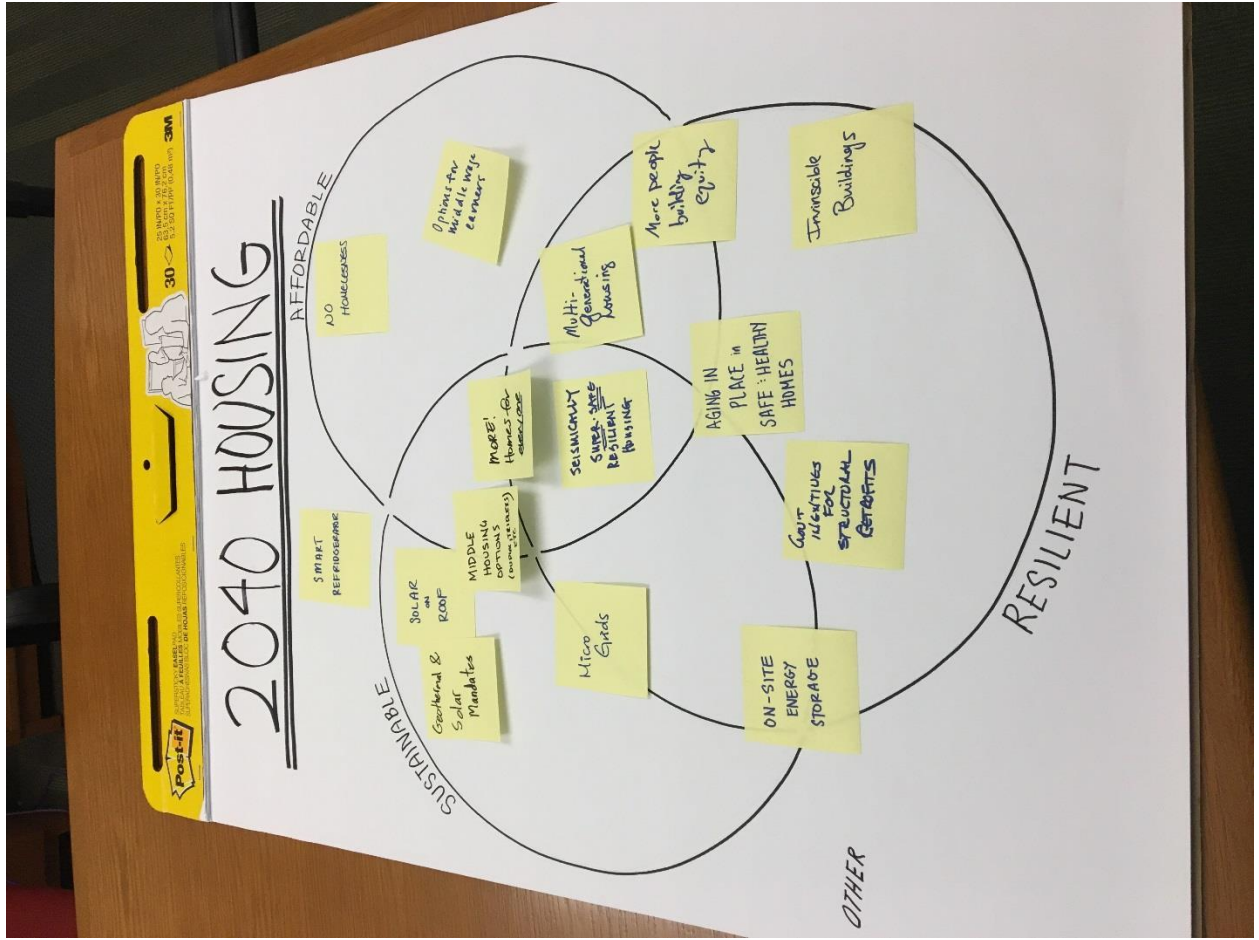
- Projects need to be coupled with policies that ensure this will not displace tenants and/or decrease affordable housing. At present, changes usually considered upgrades and so do not increase assessed value for taxing purposes, but may not be the case for all upgrades
- In contexts where project extends beyond low income communities and human health threats (such as in Marin) might require different approach in incentivizing landlords to pursue retrofits and upgrades
- California Health and Safety code states what is healthy what is not, as a reference point, and similar programs may serve as a second pair of eyes for meeting these standards. This generally would not be the case in Marin, present Bay Area partner but potentially in other Bay Area counties and cities

## Integrating for 2040 Housing Activity

Comments emerging from the short summaries included:

- Regional collaboration and governance as a place to build these integrations because of the inability of many city departments and divisions to spend resources integrating. Additionally, many local jurisdictions are competitive for grants and projects, which would again favour regional intersections and collaborations
- Necessary attempts to change the grant and reporting process to allow for these collaborative efforts to emerge and work more easily
- Presenting, identifying, and building on existing examples as key to steps moving forward for other cities and counties. For example, Marin offered to make the template for their toolkit available to other jurisdictions interested
- Need to maintain a focus on affordable housing in addition to resilience and sustainable, to be able to speak to varying income groups





### Three-twelve-three brainstorm

(3 minutes) 2040 Housing!

For existing homes, what are the practical issues and what are the strategies or concepts for them in 2040? We're not looking for strategies or concepts, just aspects.

green  
renewable power

(12 minutes) How can we integrate multiple post-its to make housing more resilient/affordable/sustainable this year?  
Discuss your aspects and reflect on the day's discussion, showing substance or strategies that can achieve aspects of your 2040 vision. Which concepts or strategies can be accomplished this year?

transformed

"SCR  
proof"

healthy

safe  
work  
habits

thinking with your strategy  
concrete steps for building  
living in a situation

### (3 minutes) Refine into a 30 second description to report out

Of the concepts you have discussed which ones are easy? Which ones are hard? Write down one easy and one hard.  
easy: implementing a low cost retro-fit  
hard: getting people to have time.

### Three-twelve-three brainstorm

(3 minutes) 2040 Housing!

For existing homes, what are the aspects (issues and needs) we envision for them in 2040? We're not looking for strategies or concepts, just aspects.

Attainable  
Ownership

Modular

Ecological/Climate  
Resilient  
Smart

ZERO  
WATER

(12 minutes) How can we integrate multiple post-its to make housing more resilient/affordable/sustainable this year?  
Discuss your aspects and reflect on the days' discussion. Develop concepts or strategies that can achieve aspects of your 2040 vision. Which concepts or strategies can be accomplished this year?

Counting Programs  
+ utilities  
giving the money  
for public goods  
for programs

Safe +  
Sustainable  
Home  
Sustainable  
Sustainable

2 NE Home  
Zero Carbon  
Home

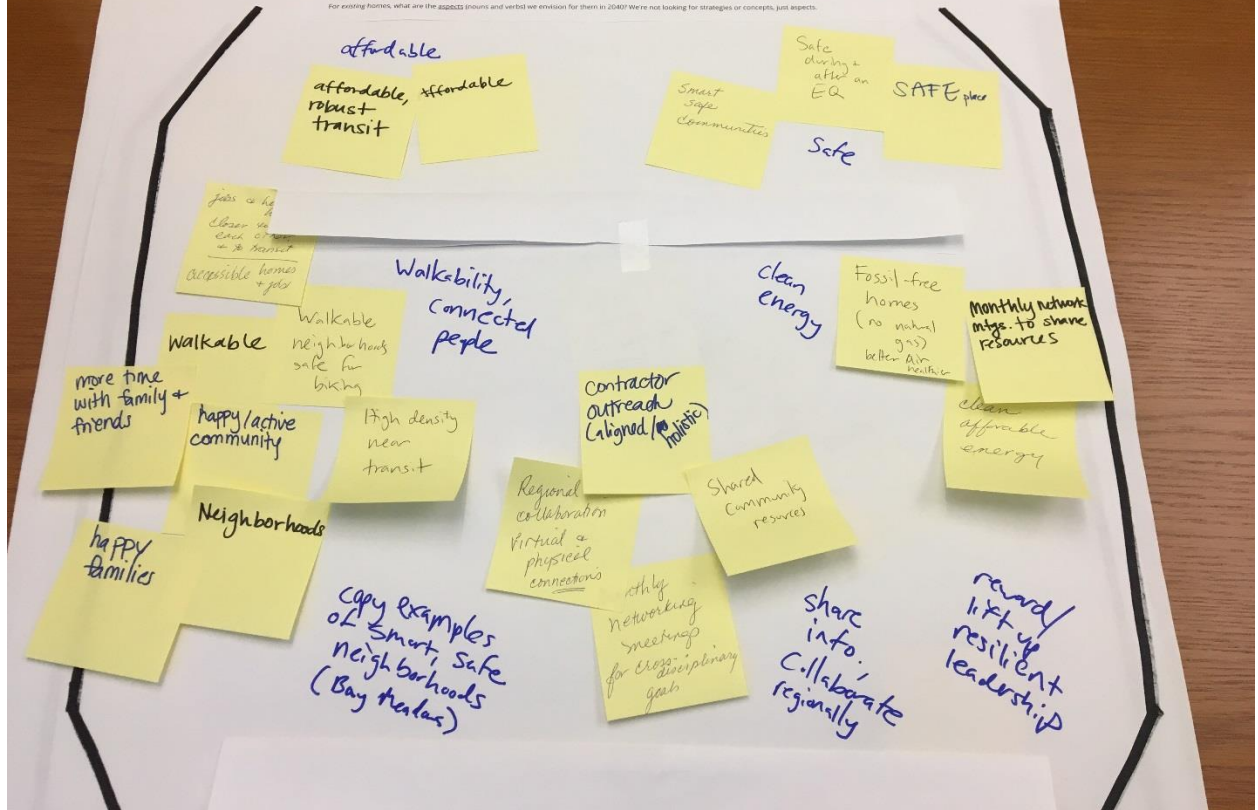
Age-Friendly  
Homes



### Three-twelve-three brainstorm

(3 minutes) 2040 Housing!

For existing homes, what are the aspects (points and verbs) we envision for them in 2040? We're not looking for strategies or concepts, just aspects.



(3 minutes) 2040 Housing!

For existing homes, what are the aspects (nouns and verbs) we envision for them in 2040? We're not looking for strategies or concepts, just aspects.

- Multi-Unit Housing
- off-grid living
- Sustainable energy (wind, solar, geothermal)
- Affordable & Multi-generational
- Dense living communities
- Transit-oriented

Complete  
Streets

Multi-Unit  
Living

Utilizing all  
space

Sustainable  
transit  
(bike-share, etc.)

Mandates/  
Incentives  
for retrofits &  
energy improvements

Sustainable  
transit (hydrogen,  
electric, bio-fuels,  
etc.)

Parking  
mandates  
(elimination/improve)

Alignment  
of Metrics  
Amongst  
Bureaucratic  
Entities

Green-building  
Codes

Easy  
Complete  
Streets  
Initiative

HARD  
Aligning Metrics  
& Requirements  
of programs

## How are you\* already connecting across housing initiatives?

\*Link your agency, your priorities, your departments, your organisations

AUs for  
multi-generational  
living  
increasing  
organically

MIDDLE  
HOUSING

(Dulles, TX / Pune, India)

Cooperation with local  
authorities to provide housing  
safety reports for existing  
tenanted properties.

UNIVERSAL  
DESIGN  
(Access in many  
Dimensions)  
E.g.

Reducing thresholds and  
providing alternative access  
for seniors and PWD

Alignment  
of  
Incentives

Financial  
model  
cost/most  
savings  
→ combine schemes

Government Budgetary  
flex - grants/in-kind  
in the Region  
(employer participation and  
schemes)

Asking  
landlords for  
EV charging  
(in the family)

GREEN  
BUILDING  
PROGRAMS

Community-wide  
star nomination  
to reduce the  
East Bay community  
energy

Water capture  
+ reuse  
on distributed  
basins  
(e.g. SFAC)

High Density Green  
housing at our  
two San Leandro  
BART station

Code / Policy  
- enforcement  
for safety  
- new housing  
2018

Amnesty  
make it safe  
to get  
upgrades

Building  
Staff  
overburdened  
and  
under staffed

Multiple language  
- grant service  
- contractors  
- tradesmen  
- vocational trade  
training

SEISMIC RETROFIT  
CLASSES AND  
DIY ENERGY  
EFFICIENCY

Commercial SPACE  
to upgrade  
new &  
existing  
multi-family  
seismic through H2O



### Three-twelve-three brainstorm

(3 minutes) 2040 Housing!

For existing homes, what are the aspects (nouns and verbs) we envision for them in 2040? We're not looking for strategies or concepts, just aspects.

Local energy

Resilient  
to natural  
Redundancy

ALL RENTAL  
HOUSES  
SEISMICALLY  
RETROFITTED

MANDATORY  
SEISMIC  
NOTIFICATION  
ON  
HOUSES FOR  
SALE

PART OF A  
COMMUNITY  
LAND TRUST

SAFE  
INDOOR  
AIR

PERMANENTLY  
AFFORDABLE

(minutes) How can we integrate multiple pos...  
as your aspects and reflect on the days discussion. Develop co...  
mplished this year?

ore resilient/affordaw... able this year?  
ve aspects of your 2040 vision. Which concepts or strategies can be

MINIMUM  
STANDARDS  
FOR  
EXISTING &  
NEW HOUSING  
PARITY

AGENCY/STATE  
SUPPORT  
NOW  
REGIONAL

All  
electric

Carbon  
Free

### Three-twelve-three brainstorm

(3 minutes) 2040 Housing!

For existing towns, what

Two minutes for them in 2040? Why? Not looking for strategies or concepts, just aspects.

more, multiply

Close to  
public transport, high density  
New green space  
associated

DENSER

friendly to  
older people  
healthy good  
communities

Climate - resilient  
affordable  
sustainable  
resilient

SAFE  
AFFORDABLE

MORE  
RESILIENT  
TO  
DISASTERS  
DISRUPTION

Safer

2040  
Healthier

COLLECTIVE  
THINKING

MORE  
RESOURCE  
SHARING

DIVERSE  
HOUSING  
TYPES

EFFICIENT  
SPACE USE  
ROOFS  
TERRACES

Green

MORE

GREENS  
ANYWHERE!

More connected

More smart

UNIVERSAL  
ACCESS

Net  
Positive

Net zero

More renewables